

REMARKS

The Office Action mailed February 6, 2008, has been received and the Examiner's comments carefully reviewed. In the present response, claims 1-2, 6-7, 11-12, 17, 19, 21, 24-25, and 27 are amended. Claims 3-5, 8-9, 13-17, 22-23, and 26 have been canceled. No new matter has been added, and claims 1-2, 6-7, 10-12, 18-21, 24-25, and 27-45 are pending. Favorable consideration of this application is requested in view of the following remarks.

Drawings

The Office Action objected to Figures 1 and 4-5, requesting replacement drawing sheets. The objections to the drawings are respectfully traversed, in accordance with the following remarks.

In conjunction with the present response, a replacement drawing sheet for Figure 1 is provided, with an amended label, as requested.

With respect to Figures 4-5, it is unclear what is requested by the Examiner by requiring "descriptive text labels"; therefore Applicants cannot assess the need for such labels. Each of the elements of Figures 4-5 is associated with a reference numeral, and is described in the specification. Further, the elements of these figures include recognizable circuit elements known in the art. Based on at least these two reasons, Applicants believe that no further description is necessary in the drawings, in the absence of further guidance regarding the type or extent of labeling requested by the Examiner.

For at least the above reasons, Applicants respectfully request reconsideration and withdrawal of the objections to the drawings.

Claim Objections

In the Office Action, claims 1-18 are objected to because of various informalities relating to the terms "the selected source" and "the selection". Applicants respectfully traverse the objection of these claims. Applicants note that claims 1, 2, 6, 7, 11, and 12 are amended in the present response to clarify the scope of the claims, eliminating the objected-to terminology. Applicants assert that the amended claims overcome the objections to the claims, and

respectfully request reconsideration and withdrawal of the objection to the currently-pending claims.

Claim Rejections - 35 USC § 112

In the Office Action, claims 10, 17, 19-36 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection of these claims.

With respect to claims 10 and 28, Applicants assert that these claims are improperly rejected under § 112. The terms “approximately” and “partially” are in fact not relative terms. In any case, these terms are not indefinite at least because the scope of each of claims 10 and 28 is readily ascertainable, and such terms are commonly accepted and understood within the art. Further, both the terms “approximately” and “partially” relate to concrete items (“20 seconds” and “absent”, respectively) and are therefore not variable in scope. *See* M.P.E.P. § 2173.05(b). Therefore, claims 10 and 28 are not indefinite.

Regarding claim 17, this claim is canceled in the present response, rendering this rejection moot.

Regarding claims 19, 24, and 25, each of these claims was rejected as indefinite based upon the term “the pair of pins”. Each of these claims is amended to clarify that “the pair of pins” corresponds to at least one of the first pair of pins and the second pair of pins. Applicants note that this clarifies that the pair of pins is one or both of the first and second pair of pins, and assert that these claims claim, as amended, is not indefinite under § 112.

Regarding claims 21 and 25, each of these claims are amended to clarify that “thereupon” or “theupon” (recited with the typographical error), in fact refer to a signal carried on “the pair of pins” as recited in those claims and corrected in claims 19 and 25, respectively. Applicants assert that these claims, as amended, is not indefinite under § 112.

Regarding claim 27, this claim is amended in the present response to clarify that the term “its” refers to the switch. Applicants assert that this claim, as amended, is not indefinite under § 112.

At least based on these amendments and remarks, Applicants assert that each of these claims are not indefinite under § 112 and respectfully request reconsideration and withdrawal of the rejection of these claims.

Claim Rejections - 35 USC § 102

In the Office Action, claims 1-3, 6-9, 11-13, 16-17, 19-21, and 24-26 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Cromer et al. (U.S. Patent Publication No. 2004/0223462). Applicant respectfully traverses this rejection.

Amended independent claims 1, 6, 11 and 19 each require, among other elements a monitoring element requiring monitoring for, among other elements, “a normal link pulse, a multi-level tier 3 pulse, and a fast link pulse.” As explained in the application, the monitoring step requires a system which monitors for each of these types of pulses. The normal link pulse indicates that a 10base-T system is used, and the multi-level tier 3 pulse indicates that a 100base-T system is used. Upon detection of either the normal link pulse or multi-level tier 3 pulse, the data connection speed is known, since each of these pulses is associated with a single data connection speed. The fast link pulse indicates that either a 10base-T or 100base-T system is used, based on the results of a subsequent autonegotiation process. Applicants respectfully assert that at least this element is not disclosed in Cromer et al.

In contrast to the claims, Cromer only discloses monitoring for fast-link signals, rather than monitoring for any of the three pulses (fast link, normal link, and multi-level tier 3) recited in the claim. The Office Action indicates that this is the case, stating “”. Applicants therefore note that these claims are not anticipated by Cromer, and that this rejection should be withdrawn. Applicants likewise request reconsideration and withdrawal of the rejection of dependent claims 2-3, 7-9, 12-13, 16-17, 20-21, and 24-25, which depend from these independent claims.

As an additional note, Applicants observe that the amendments to the claims recite limitations found in the now-canceled claims 4-5, 10, 14-15, 18, 22-23, and 26. These claims

were previously rejected under § 103(a) as unpatentable over Cromer in view of Overs et al. (U.S. Patent No. 6,600,755). Applicants observe that this combination also does not render obvious any of independent claims 1, 6, 11, and 19. Neither Cromer nor Overs discloses monitoring for all three of a fast link pulse, a normal link pulse, and a multi-level tier 3 pulse. Overs monitors for the normal link pulse or multi-level tier 3 pulse signals individually, to detect different data transmission rates at an RJ-45 interface, but does not indicate use of a fast link pulse. Cromer discloses use of only a fast link pulse (as recognized in the Office Action) to detect the existence of communication in advance of an autonegotiation process to determine a data rate. Cromer specifically acknowledges the existence of normal link pulses, but it rejects use of those pulses in favor of using fast link pulses. Cromer does not mention multi-level tier 3 pulses altogether. Each of the systems of Cromer and Overs have drawbacks, based on the lack of monitoring all three types of signals. For example, Cromer may not be able to connect to legacy systems using only a normal link pulse; this limits the types of network interfaces useable with that system. Furthermore, there exists no motivation to combine these two references, since each reference independently describes a system which can communicate at multiple data rates.

Applicants therefore believe that the independent claims 1, 6, 11, and 19 (and the claims depending therefrom) are allowable over the combination of Cromer and Overs as well.

Claim Rejections - 35 USC § 103

In the Office Action, claims 4-5, 14-15, 22-23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cromer, in view of Overs et al.. Applicant respectfully traverses this rejection. Claims 10 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cromer in view of Pickell (U.S. Patent Pub. No. 2004/0153701). Claims 27-35 and 37-45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cromer in view of Manzardo (U.S. Patent No. 6,127,953). Claim 36 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cromer and Manzardo, in view of Cam et al. (U.S. Patent No. 6,671,758). Applicant respectfully traverses the rejection of these claims.

A. Claims 4-5, 14-15, 22-23

Claims 4-5, 14-15, 22-23 canceled in the present response, and have been incorporated into independent claims 1, 11, and 19, respectively. Applicants note that the above arguments for patentability of those claims addresses both anticipation based on Cromer, as well as the nonobviousness of the claims over Cromer in view of Overs et al.

B. Claims 10 and 18

Claim 10 depends from claim 6, and claim 18 depends from claim 11. The combination of Cromer and Pickell fails to disclose each of the elements of the independent claims, at least because Pickell also fails to disclose monitoring for, among other elements, “monitoring for a normal link pulse, a multi-level tier 3 pulse, and a fast link pulse.” Therefore these claims should be allowable for at least the same reasons as set forth above with respect to those claims.

C. Claims 27-35 and 37-45

Independent claims 27, 37, and 38 require, among other elements, “a switch having a first end and a second end, the first end capable of coupling to any of a plurality of potential sources of a data signal, the second end coupled to an input port of a physical interface that converts the data signal from a signal that propagates along a first medium to a signal that propagates along a second medium; and an optical transceiver coupled to the physical interface.” Independent claims 27 and 38 also require a logic device coupled to the physical interface and arranged to “cause the switch to iteratively couple a first end of the switch to each of the plurality of potential data sources on a one-by-one basis, until instructed to cease such iterative coupling by the logic device; receive a signal from the physical interface, the signal communicating a data rate at which the data signal will be communicated; and upon reception of the signal communicating the data rate at which the data signal will be communicated, instruct the switch to cease the iterative coupling.” Independent claim 37 requires “means for controlling the switch so as to couple the input port of the physical interface to one of the plurality of potential data sources actually carrying a data signal; and wherein the physical interface detects a data rate of the data signal.” Applicants respectfully observe that the combination of Cromer with Manzardo is improper, and therefore these claims are not rendered obvious.

The combination of Cromer with Manzardo as presented in the Office Action is improper, in that there exists no apparent motivation to combine the two references at the time of the invention. The Office Action indicates that a person of ordinary skill in the art would combine Cromer and Manzardo because “Manzardo’s teachings would enhance the capability of the switch by allowing the switch to communicate in different types of transmission media, wherein optical communication would provide high bandwidth and better quality over long distances.” However, this description of a motivation to combine these references is drawn directly from the present application itself, which describes differing data rates in a media converter. *See* Background, page 1. No indication to combine these references is provided in either of Cromer or Manzardo, or discussed as being otherwise in the prior art. Cromer provides no teaching of optical networks, as that reference relates specifically to “data processing networks and more particularly to Ethernet networks employing twisted pair cabling.” Cromer, ¶[0002]. Further, the portion of Manzardo disclosing an optical interface (Figure 7) already includes a physical link layer (element 118 of Figure 7) arranged differently from that claimed. Therefore, only through hindsight would the two references be combined.

For at least the above reasons, Applicants observe that independent claims 27, 36, and 37 are not rendered obvious by the combination of Cromer and Manzardo; Applicants therefore respectfully request reconsideration and withdrawal of the rejection of these claims. Applicants also respectfully request reconsideration and withdrawal of the rejection of claims 28-35 and 38-45, which depend from these claims.

D. Claim 36

Claim 36 depends from independent claim 27, and therefore inherits each of the limitations of that claim. The additional reference asserted against claim 36 (Cam) also provides no teaching which would indicate to combine the teachings of Cromer and Manzardo. Claim 36 is therefore allowable at least for the same reasons as set forth in part C, above.

Conclusion

It is respectfully submitted that each of the presently pending claims is in condition for allowance and notification to that effect is requested. Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicant reserves the right to raise these arguments in the future. The Examiner is invited to contact Applicant's representative at the below-listed telephone number if it is believed that the prosecution of this application may be assisted thereby.

Respectfully submitted,

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